

What is claimed is:

1. A negative feedback amplifier with a feedback resistor connected between an output terminal and an input terminal of an amplifier, said amplifier being powered from a first power terminal and a second power terminal, said negative feedback amplifier comprising:

a division node between a first resistor on said input terminal's side and a second resistor on said output terminal's side which together constitute said feedback resistor;

a first diode having a first electrode connected to said first power terminal, and a second electrode connected to said division node; and

a second diode having a first electrode connected to said second power terminal, and a second electrode connected to said division node.

2. The negative feedback amplifier according to claim 1, further comprising:

a third diode having a first electrode connected to said division node, and a second electrode connected to said first power terminal; and

a fourth diode having a first electrode connected to said division node, and a second electrode connected to said second power terminal.

3. A negative feedback amplifier with a feedback resistor connected between an output terminal and an input terminal of an amplifier, said amplifier being powered from a first

power terminal and a second power terminal, said negative feedback amplifier comprising:

a first division node and a second division node, said first and second division node provided between a first resistor and a second resistor, the second resistor and a third resistor respectively, said first to third resistors being arranged from said input terminal's side to said output terminal's side in order, and together constituting said feedback resistor;

a first diode having a first electrode connected to said first power terminal, and a second electrode connected to said first division node;

a second diode having a first electrode connected to said second power terminal, and a second electrode connected to said first division node;

a third diode having a first electrode connected to said second division node, and a second electrode connected to said first power terminal; and

a fourth diode having a first electrode connected to said second division node, and a second electrode connected to said second power terminal.

4. The negative feedback amplifier according to claim 1, wherein said diode connected between said power terminal and said division node comprises a plurality of elements connected in series.

5. The negative feedback amplifier according to claim 2, wherein said diode connected between said power terminal

and said division node comprises a plurality of elements connected in series.

6. The negative feedback amplifier according to claim 3, wherein said diode connected between said power terminal and said division node comprises a plurality of elements connected in series.

7. A negative feedback amplifier with a feedback resistor connected between an output terminal and an input terminal of an amplifier, said amplifier being powered from a first power terminal and a second power terminal, said negative feedback amplifier comprising:

- a division node between a first resistor on said input terminal's side and a second resistor on said output terminal's side which together constitute said feedback resistor;

- a first diode having a first electrode connected to said first power terminal, and a second electrode connected to a connection node;

- a second diode having a first electrode connected to said second power terminal, and a second electrode connected to said connection node; and

- a third diode having a first electrode connected to said connection node, and a second electrode connected to said division node.

8. A negative feedback amplifier with a feedback resistor connected between an output terminal and an input terminal of an amplifier, said amplifier being powered from a first

power terminal and a second power terminal, said negative feedback amplifier comprising:

- a first division node and a second division node, said first and second division nodes provided between a first resistor and a second resistor, the second resistor and a third resistor respectively, said first to third resistors being arranged in order from said input terminal's side to said output terminal's side, and together constituting said feedback resistor;

- a first diode having a first electrode connected to said first power terminal, and a second electrode connected to a first connection node;

- a second diode having a first electrode connected to said second power terminal, and a second electrode connected to said first connection node;

- a third diode having a first electrode connected to said first connection node, and a second electrode connected to said first division node;

- a fourth diode having a first electrode connected to a second connection node, and a second electrode connected to said first power terminal;

- a fifth diode having a first electrode connected to said second connection node, and a second electrode connected to said second power terminal; and

- a sixth diode having a first electrode connected to said second division node, and a second electrode connected to said second connection node.

9. The negative feedback amplifier according to claim 7, wherein said diode connected between said power terminal and said connection node comprises a plurality of elements connected in series.

10. The negative feedback amplifier according to claim 8, wherein said diode connected between said power terminal and said connection node comprises a plurality of elements connected in series.

11. The negative feedback amplifier according to claim 1, wherein said first electrode of each of said diodes is an anode, and said second electrode thereof is a cathode.

12. The negative feedback amplifier according to claim 3, wherein said first electrode of each of said diodes is an anode, and said second electrode thereof is a cathode.

13. The negative feedback amplifier according to claim 7, wherein said first electrode of each of said diodes is an anode, and said second electrode thereof is a cathode.

14. The negative feedback amplifier according to claim 8, wherein said first electrode of each of said diodes is an anode, and said second electrode thereof is a cathode.

15. The negative feedback amplifier according to claim 1, wherein said amplifier is composed of a high-electron-mobility transistor, and each of said diodes is composed of a Schottky diode formed in the same process as said amplifier.

16. The negative feedback amplifier according to claim 3, wherein said amplifier is composed of a high-electron-

mobility transistor, and each of said diodes is composed of a Schottky diode formed in the same process as said amplifier.

17. The negative feedback amplifier according to claim 7, wherein said amplifier is composed of a high-electron-mobility transistor, and each of said diodes is composed of a Schottky diode formed in the same process as said amplifier.

18. The negative feedback amplifier according to claim 8, wherein said amplifier is composed of a high-electron-mobility transistor, and each of said diodes is composed of a Schottky diode formed in the same process as said amplifier.

19. The negative feedback amplifier according to claim 1, wherein resistance of said first resistor is 10 to 100 $\Omega$ .

20. The negative feedback amplifier according to claim 3, wherein resistance of said first resistor is 10 to 100 $\Omega$ .

21. The negative feedback amplifier according to claim 7, wherein resistance of said first resistor is 10 to 100 $\Omega$ .

22. The negative feedback amplifier according to claim 8, wherein resistance of said first resistor is 10 to 100 $\Omega$ .